AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (*Currently Amended*) A method for detecting an abnormality of an optical module, wherein the method comprises:

detecting a value of a current flowing through a specified spot of <u>a power line coupled to</u> the optical module;

holding the detected value of the current in a memory;

detecting a value of a current flowing through the specified spot at every predetermined time;

obtaining a differential value between the value of the current held in the memory and the value of the newly detected current; and

generating alarm signal indicating a necessity of preventive maintenance when the obtained differential value exceeds a predetermined threshold value~~, wherein the value of the current flowing through the specified spot is a value of a current in a power line for supplying power to the optical module including a laser diode driver~~.

2. (*Cancelled*).

3. (*Currently Amended*) The method for detecting an abnormality of an optical module according to claim 1, wherein the value of the current flowing through the specified spot is a monitor current detected by a current detector ~~in the optical module~~.

4. (*Cancelled*).

5. (*Previously Presented*) The method for detecting an abnormality of an optical module according to claim 1, wherein the value of the current held in the memory is a value of a current flowing through the specified spot at the start time of the use of the optical module.

6. (*Original*) The method for detecting an abnormality of an optical module according to claim 1, wherein the value of the current held in the memory is overwritten to the value of the current which is newly detected in the specified spot when a differential value is obtained.

7. (*Currently Amended*) The method for detecting an abnormality of an optical module according to claim 1, wherein the detected value of the current flowing through the specified spot ~~of the optical module~~ is an average value of currents for the predetermined time.

8. (*Currently Amended*) A method for detecting an abnormality of an optical module,
wherein the method comprises:

detecting a value of a current flowing through a specified spot of <u>a power line coupled to</u>
the optical module;

holding the detected value of the current in a memory;

newly detecting a value of a current flowing through the specified spot at every
predetermined time;

obtaining a ratio of a differential value between the value of the current held in the
memory and the value of the newly detected current to the value of the current held in the
memory; and

generating alarm signal when the obtained ratio exceeds a predetermined threshold value~~,~~
~~wherein the value of the current flowing through the specified spot is a value of a current in a~~
~~power line for supplying power to the optical module including a laser diode driver~~.

9. (*Currently Amended*) An apparatus for detecting an abnormality of an optical module
comprising:

a current detector which detects a value of a current flowing through a specified spot of <u>a</u>
<u>power line coupled to</u> said optical module;

a memory which holds the value of the current detected by said current detector;

an arithmetic circuit which obtains a differential value between the value of the current
held in said memory and a value of a current newly detected by said current detector; and

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an alarm circuit which generates alarm signal when the differential value obtained by said

arithmetic circuit exceeds a predetermined threshold value, wherein the value of the current

~~flowing through the specified spot is a value of a current in a power line for supplying power to~~

~~said optical module.~~

10-11. (*Cancelled*).

12. (*Original*) The apparatus for detecting an abnormality of an optical module according

to claim 9, wherein the value of the current held in said memory is a value of a current flowing

through the specified spot, the value of the current being detected by said current detector at the

start time of the use of said optical module.

13. (*Original*) The apparatus for detecting an abnormality of an optical module according

to claim 9, wherein said current detector detects a value of a current flowing through the

specified spot at every predetermined time, and sends out the detected value of the current to said

memory.

14. (*Original*) The apparatus for detecting an abnormality of an optical module according to claim 9,

wherein said memory includes a first memory and a second memory,

said first memory receives and holds a value of a current from said current detector, and sends out the value of the current held until then to said second memory,

said second memory holds the value of the current sent from said first memory, and

said arithmetic circuit obtains a differential value between the values of the currents held in said first memory and said second memory.

15. (*Original*) The apparatus for detecting an abnormality of an optical module according to claim 9, wherein said current detector detects an average value of currents flowing though the specified spot for a predetermined time as a value of a current.

16. (*Currently Amended*) An apparatus for detecting an abnormality of an optical module comprising:

a current detector which detects a value of a current flowing through a specified spot of a power line coupled to said optical module;

a memory which holds the past value of the current detected by said current detector;

an arithmetic means which obtains a ratio of a differential value between said past value held in said memory and a value of a current detected at present by said current detector; and

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alarming means which generates alarm signal when the ratio obtained by said arithmetic

means exceeds a predetermined threshold value, wherein the value of the current flowing

through the specified spot is a value of a current in a power line for supplying power to said

optical module.